

**SINGLE PANEL COLOR VIDEO PROJECTION DISPLAY USING  
REFLECTIVE BANDED COLOR FALLING-RASTER ILLUMINATION**

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**ABSTRACT**

A projection display system. The projection system includes a light source, illumination optics that are capable of splitting the light from the source into individual color bands, and folding mirrors. The folding mirrors operate to direct the color bands to a reflective element that has a contoured surface. The contoured surface of the reflective 10 element causes the light to form into scanning rasters that are recombined and sent to a spatial light modulator. The spatial light modulator is typically made up of a panel of individually addressable elements. If the spatial light modulator requires polarized light, a polarizing beam splitter and quarter-wave plate are included as part of the illumination optics.